4. ST. LAWRENCE RIVER ABOVE ST. REGIS

(1) The **St. Lawrence River,** 744 statute miles (672.6 nm) long, is one of the principal rivers of North America and provides access for ocean going vessels to the Great Lakes and the great industrial and agricultural heartland of the continent. The river flows NE from its head in Lake Ontario, first along the United States-Canadian border, thence through the S part of Quebec Province past the cities of Montreal and Quebec before emptying into the Gulf of St. Lawrence. In its upper part, the river is wide and is filled with the Thousand Islands. Below Cornwall, Ont., the river widens into Lake St. Francis, thence into Lake St. Louis, thence descends through Lachine Rapids to Montreal. Lake St. Peter, another widened section, is between Sorel and Trois Rivieres. Below the city of Quebec, the river is a tidal estuary which gradually increases to a width of 90 statute miles (78.2 nm) at the mouth.

(2) This chapter describes the upper part of the river, from St. Regis, Que., upstream to Lake Ontario. No attempt has been made to mention all of the islands, shoals, winding channels, and irregularities of the mainland shores which characterize the river for most of its length. Mariners are referred to the charts for delineation of the intricate details of topography and hydrography.

(3) That part of the St. Lawrence River from Montreal upstream to Lake Ontario is part of the St. Lawrence Seaway and is under the navigational control of the Saint Lawrence Seaway Development Corporation, a corporate agency of the United States, and the St. Lawrence Seaway Management Corporation of Canada. These agencies issue joint regulations covering vessels and persons using the Seaway. The regulations are codified in **33 CFR 401** and are also contained in the Seaway Handbook, published jointly by the agencies. A copy of the regulations is required to be kept on board every vessel transiting the Seaway. A schedule of the Seaway tolls is contained in the handbook. (See St. Lawrence Seaway, chapter 3, and **33 CFR 401,** chapter 2.)

(4) **Vessel traffic control.**–The Seaway portion of the St. Lawrence River is divided into four traffic control sectors, with vessel movements in each sector controlled by a traffic controller. The objective of the system is to provide safe and efficient scheduling of vessel traffic, efficient search and rescue coverage, information regarding pilot requirements to the pilot dispatch centers, marine weather broadcasts, and information on vessel location to all interested parties.

(5) The traffic control sectors in the St. Lawrence River are as follows:

(6) Sector 1, from Montreal to about midlength of Lake St. Francis;

(7) Sector 2, from midlength of Lake St. Francis to Bradford Island;

(8) Sector 3, from Bradford Island to Crossover Island; and

(9) Sector 4, from Crossover Island to midlake in Lake Ontario.

(10) St. Lambert traffic control center controls traffic in Sector 1 through "Seaway Beauharnois," VHF-FM channel 14, and in Sector 3 through "Seaway Iroquois," VHF-FM channel 11. Massena traffic control center controls traffic in Sector 2 through "Seaway Eisenhower," VHF-FM channel 12, and in the St. Lawrence River portion of Sector 4 through "Seaway Clayton," VHF-FM channel 13. Complete information on the traffic control sectors and their respective calling-in points is contained in the Seaway Handbook.

(11) **Channels.**–The main vessel course through the river has been improved by dredging, and canals and locks have been constructed to bypass the rapids and to overcome the water level difference between the ocean and Lake Ontario. The controlling depth in the channels of the St. Lawrence Seaway through the river is 27 feet (8.2 meters).

(12) The maximum permissible draft in the Seaway is 26 feet (7.9 meters). The loading, draft, and speed of a vessel in transit shall be controlled by the vessel master according to the vessel's individual characteristics and its tendency to list or squat, so as not to strike bottom. The draft shall not in any case exceed the maximum permissible draft, which will be strictly enforced. Where a vessel's draft is in excess of the maximum permissible draft, the vessel will be delayed and the overdraft corrected before transit. The maximum permissible draft in any channel is subject to change should conditions so warrant. (For current information on permissible drafts through the St. Lawrence Seaway, consult the Seaway Notices.)

(13) The maximum overall length and extreme breadth authorized in the Seaway locks is 730 feet (222.5 meters) and 76 feet (23.2 meters), respectively. The maximum height authorized in the Seaway is 116½ feet (35.5 meters) above the water. (For complete information on vessel dimension restrictions, refer to the Seaway Handbook,

(14) **Speed restrictions.**–The St. Lawrence Seaway waters of the St. Lawrence River are a controlled speed area. The speed limits in U.S. waters are in accordance with **33 CFR 401.** (See **33 CFR 401**, chapter 2.)

(15) The maximum speeds for vessels in excess of 40 feet (12.2 meters) in length are in effect in the following areas unless otherwise indicated through Seaway Notices:

(16) Upper Entrance South Shore Canal to Lake St. Louis (Buoy A13), 10.5 knots;

(17) Lake St. Louis (Buoy A13) to Lower Entrance Lower Beauharnois Lock, 16 knots;

(18) Upper Entrance Upper Beauharnois Lock to Lake St. Francis (Buoy D3), 9 knots upbound and 10.5 knots downbound; Lake St. Francis (Buoy D3) to Lake St. Francis (Buoy D49), 16 knots;

(19) Lake St. Francis (Buoy D49) to Snell Lock, 8.5 knots upbound, and 10.5 knots downbound;

(20) Eisenhower Lock to Richards Point (Light 55), 11.5 knots;

(21) Richards Point (Light 55) to Morrisburg (Buoy 84), 13 knots;

(22) Morrisburg (Buoy 84) to Ogden Island (Buoy 99), 11.5 knots;

(23) Ogden Island (Buoy 99) to Blind Bay (0.5 statute mile (0.4 nm) east of Buoy 162), 13 knots;

(24) Blind Bay (0.5 statute mile (0.4 nm) east of Buoy 162) to Deer Island (Light 186), 11.5 knots;

(25) Deer Island (Light 186) to Bartlett Point (Light 227), 8.5 knots upbound and 10.5 knots downbound;

(26) Bartlett Point (Light 227) to Tibbetts Point, 13 knots;

(27) Junction of Canadian Middle Channel and Main Channel abreast of Ironsides Island to open waters between Wolfe and Howe Islands through the said Middle Channel, 9.5 knots;

(28) Port Robinson to Ramey's Bend through the Welland By-Pass, 8 knots;

Structures across the St. Lawrence River
*Miles above Quebec Bridge
**Clear width in feet proceeding upstream

No.	Location and Name	Kind	Miles*	Clear width in feet of draw or span openings**			Clear width in feet above Water datum		Remarks
				Right	Left	Center	Low	High	
1	Quebec Bridge	Highway & Railroad	0.0			760		150	Fixed.
2	Overhead cabes	Power	0.1					158	
3	Pierre Laporte Bridge	Highway	0.1					150	Fixed
4	Overhead cables	Power	0.3					170	
5	Overhead cables	Power	73.7					160	
6	Laviolette Bridge	Highway	74.5					150	Fixed
7	Overhead cables	Power	109.0				166		
8	Overhead cables	Power	142.1				165		
9	Overhead cable	Power	147.6				165		
10	Jacques Cartier Bridge	Highway	152.0			200	120		Fixed
11	Overhead cables	Power	153.7				210		
12	Victoria Bridge	Highway & Railroad	153.8			80	120		Vertical lift.
	Lambert Lock		153.9						
13	Victoria Diversion bridge	Highway & Railroad	154.0			80	120		Vertical lift.
14	Champlain Bridge	Highway	155.8			300	120		Fixed
	Cote St. Catherine Lock		162.2						
15	Cote St. Catherine Bridge	Highway	162.3			80			Rolling lift.
16	Overhead cables		165.0				120		
17	Overhead cables		165.2				120		
18	Overhead cables		165.3				120		
19	Honore Mercier Bridge	Highway	166.9			250	120		Fixed
20	Overhead cable	Power	167.0				120		
21	Canadian Pacific Ry. bridge	Railroad	167.1			250	120		Vertical lift.
	Beauharonis Lock		182.2						
22	Overhead cables	Power	182.3				120		
23	Overhead cable	Power	182.6				120		
24	Overhead cable	Power	182.7				120		
	Melocheville Lock		183.2						
25	ConRail Bridge	Railroad	183.3			80			Swing.
26	St. Louis Bridge	Highway & Railroad	189.5			175	120		Vertical lift. Clearance down 14 feet.
27	Valleyfield Bridge	Highway & Railroad	195.1			180	120		Vertical lift. Clearance down 10 feet.
28	Seaway International Bridge	Highway	231.7			600	122		Fixed.
	Bertrand H. Snell Lock		233.5						
29	Overhead cables	Power	234.6				140		
	Dwight D. Eisenhower Lock		237.1						Rolling lift.
30	Iroquois Lock Bridge	Highway	262.3						
	Iroquois Lock		262.4						
31	Ogdensburg-Prescott Bridge	Highway	272.3			1,150	129		Suspension.
32	Thousand Islands Bridge	Highway	311.9			800	152		Suspension.

(29) All other canals, 6 knots;

(30) **Fluctuations of water level.**–The water levels of the various reaches of the St. Lawrence River are fairly constant. Some variations from normal may occur at the power dams. A wind blowing constantly from one direction may cause a short-term fluctuation of up to about 2 feet (about 0.6 meter) above or below normal.

(31) When water levels at the Kingston, Ont., or Ogdensburg, N.Y., gages fall below Low Water Datum, the traffic control stations broadcast low water warnings. These broadcasts are made every two hours until the levels return above Low Water Datum.

(32) **Currents, St. Lawrence River.**–The current velocities in the St. Lawrence River are varied depending on the reach or channel, and the time of year, e.g., spring thaws. From Montreal to Ogdensburg, N.Y., the maximum velocity in the navigation channels is generally about 2.3 knots. From Ogdensburg to Lake Ontario, the fall of the river is only 1 foot (0.3 meter) and the current velocity in many channels is less than 0.6 knot.

(33) **Weather, The St. Lawrence River.**–The deep, narrow St. Lawrence River Valley can channel, deflect, intensify, or reduce the prevailing winds. As might be expected from the orientation of the valley, winds blow frequently from SW and NE, particularly strong winds. Extremes, usually from these directions, have been clocked at 40 to 60 knots. Strong northeasterlies are often generated by lows that pass to the S or those that traverse the Great Lakes region when a high lingers in the Gulf of St. Lawrence. Downriver winds, from the SW to W, prevail in the wake of these storms. An intense storm along the Atlantic coast will usually generate N to NW winds along the upper St. Lawrence River, which is somewhat sheltered by the hills to the N. Gales are most likely from November through April. Summer windspeeds usually average less than 9 knots; speeds of 17 knots or more occur less than 10 per cent of the time. Occasional strong winds are usually associated with thunderstorm gusts. Summer winds rarely blow up river. Southwesterlies and westerlies prevail.

(34) Fog, precipitation, haze, and smoke all can reduce visibilities. Fog is the most common and usually the most restrictive. Along this portion of the St. Lawrence River, fog (visibilities less than 1,100 yards (1,000 meters)) occurs on about 25 days each year, mainly from fall through spring. It often forms on cool, calm, clear nights onshore and drifts out over the water. It usually burns off by noon. Sometimes in spring, warm air moving over the cold river will create a dense, persistent fog. However, this is more common over the wider lower St. Lawrence River. Smoke from brushfires in September and October can reduce visibilities. Visibility may also be briefly restricted below 2 statute miles (1.7 nm) by rain or snow.

(35) **Ice.**–Before the closing of the St. Lawrence Seaway and after its spring opening, some typical river ice may be encountered. Shore-fast ice begins to form in December, and its main outlines are established by early January. The formation spreads upstream from St. Regis. Drift ice is sometimes found in the shipping channels toward the end of the navigation season and the beginning of the new one. The ice begins to melt, usually in early March, near the entrance to Lake Ontario. There is a gradual clearing of shipping lanes and the whole area is normally free of ice by the end of April.

(36) **Pilotage.**–The waters of the St. Lawrence River described in this chapter are Great Lakes designated waters. All registered vessels of the United States and foreign vessels are required to have in their service a United States or Canadian registered pilot. Registered pilots for the reach from St. Regis to Lake Ontario are supplied by the Great Lakes Pilotage Authority, Ltd., Cornwall, and the St. Lawrence Seaway Pilots Association. (See appendix for addresses.) Pilot exchange points are at Snell Lock and off Cape Vincent, N.Y. (See Pilotage, chapter 3, and **46 CFR 401,** chapter 2.)

(37) **Chart 14761.**–The **International boundary** between the United States and Canada extends from E and intersects the St. Lawrence River at **St. Regis, Que.,** opposite the lower end of Cornwall Island, about 116 statute miles (100.8 nm) below the head of the river at Lake Ontario. In this chapter, for a detailed description of Canadian waters, consult **Canadian Sailing Directions, CEN301, St. Lawrence River**.

(38) **Chart Datum, St. Lawrence River, above Summerstown and below Snell Lock.**–The depths are referred to the sloping surface of the river when the gage at **Summerstown,** Ontario, 6.5 statute miles (5.6 nm) below Cornwall Island, reads 151.6 feet (46.20 meters) and the gage at Pollys Gut, just below Snell Lock, reads 152.9 feet (46.60 meters). These elevations are above mean water level at Rimouski, Quebec, on International Great Lakes Datum 1985 (IGLD 1985). (See Chart Datum, Great Lakes System, indexed as such, chapter 1.)

(39) The main vessel route in this section of the river extends from Lac Saint-Francois on the N side of Ile Saint-Regis and thence between the W end of Ile Saint-Regis and the E end of **Cornwall Island.** Here the vessel route enters United States waters for the first time and in the remainder of the river follows deep water without regard to the International boundary.

(40) **Calling-in point.**–Upbound vessels shall contact "Seaway Eisenhower" on VHF-FM channel 12 when approximately abeam of the lower end of Cornwall Island. After initial contact, vessels shall guard VHF-FM channel 12. (See the Seaway Handbook for details.)

(41) The vessel route extends along the S side of Cornwall Island to Snell Lock at the E end of Wiley-Dondero Canal.

(42) **Currents, St. Lawrence River**.-In August 1977, the following currents were determined in the area just below Snell Lock:

(43) out of Pollys Gut 1.1 to 2.4 knots,

(44) the channel between Pollys Gut and the Seaway International Bridge 1.0 to 3.4 knots,

(45) and at the bridge 2.4 to 3.4 knots.

(46) These values came from a St. Lawrence Seaway Development Corporation study.

(47) **Cornwall, Ont.** is a city on the N side of the river N of Cornwall Island.

(48) The following is extracted (partial) from **Canadian Sailing Directions CEN301, St. Lawrence River, Chapter 1**. It is to be noted that the units of miles are nautical miles.

(49) *The city of **Cornwall**, with a population of 47,137 (1991), is on the north shore of the St. Lawrence River, north of Cornwall Island. There are several industrial plants in the city. Cornwall has bus and rail services. Highway 401 is 3 km north of the harbour. The St. Lawrence Seaway Authority have their operating headquarters in Cornwall. The distance by the Seaway channel from Montreal is 69 miles.*

(50) *The harbour at Cornwall is a public harbour administered by the Department of Transport.*

(51) *Cornwall is a* ***Customs*** *port of entry. Vessels bound for Cornwall from foreign ports may request pratique by radio from the Quarantine Station, Montreal.*

(52) *Cornwall wharf, 575 feet (175 m) long with a depth of 27 feet (8.2 m) in 1994, is south of the Cornwall Industrial Development Corporation buildings. This wharf is operated by the Department of Transport. Tugs are not normally required for berthing; with sufficient notice, tugs can be available for emergency or standby use. A transit shed on Cornwall wharf has 11,340 square feet (1,055 m²) of storage space for general cargo.*

(53) **Raquette River** flows into the S side of the St. Lawrence River near lower end of Cornwall Island. The river has depths of 12 feet (3.7 meters) at the mouth, but shoals rapidly to 2 feet (0.6 meter) and has several small islands and a submerged crib within 0.7 statute mile (0.6 nm) of the mouth.

(54) **Calling-in point.**–Upbound vessels shall contact "Seaway Eisenhower" on VHF-FM channel 12 when about 0.5 statute mile (0.4 nm) below Seaway International Bridge. After initial contact, vessels shall guard VHF-FM channel 12. (See the Seaway Handbook for details.)

(55) **Grass River** flows into the S side of the St. Lawrence River just below the E end of Wiley-Dondero Canal. The river is navigable for about 6.5 statute miles (5.6 nm) to the junction with Massena Canal, but is obstructed by numerous boulders near the junction. The three bridges that cross the river below the junction have a least clearance of 39 feet (11.9 meters).

(56) **Wiley-Dondero Canal,** cut in part through the U.S. mainland, extends from just W of the mouth of Grass River W for about 10 statute miles (8.7 nm) past the **Long Sault Islands** to the vicinity of the **Croil Islands.** The canal, with its two locks, serves to raise vessels from the level of Lac Saint-Francois to that of Lake St. Lawrence. **Bertrand H. Snell Lock,** at the E end of the canal, has a normal lift of 45 to 49 feet (13.7 to 14.9 meters). **Dwight D. Eisenhower Lock,** 3.5 statute miles (3 nm) W of Snell Lock, has a normal lift of 38 to 42 feet (11.6 to 12.8 meters).

(57) A **speed limit** of 7 mph is enforced in the canal between Eisenhower and Snell Locks.

(58) **Calling-in point.**–Downbound vessels shall contact "Seaway Eisenhower" on VHF-FM channel 12 when approximately abeam of the central island of the Croil Islands. After initial contact, vessels shall guard VHF-FM channel 12. (See the Seaway Handbook for details.)

(59) **Currents, Wiley-Dondero Canal.**–Crosscurrents with velocities to 2 knots have been reported in the Wiley-Dondero Canal. These currents set NE along the lower end of the Long Sault Islands and ESE at the upper end of the islands.

(60) Standby areas for small craft awaiting transit through the locks are on the S side of the canal just W of Snell Lock and just E of Eisenhower Lock. The areas are each marked by a buoy. Mooring cells for deep-draft vessels awaiting transit are on the S side of the canal 0.9 statute mile (0.8 nm) W of Snell Lock, 1.1 statute miles (1 nm) E of Eisenhower Lock, and 1.6 statute miles (1.4 nm) W of Eisenhower Lock. Each set of mooring cells is marked at each end by a light, and all but the latter have a catwalk.

(61) **Lake St. Lawrence** is contained by Eisenhower Lock and by two dams. **Moses-Saunders Power Dam,** 3 statute miles (2.6 nm) NE of the lock, extends from the E end of **Barnhart Island** across the International boundary to the Canadian mainland. **Long Sault Spillway Dam** connects the mainland N of Eisenhower Lock to the W end of Barnhart Island. The dam has thirty 50-foot-wide (15.2-meter-wide) vertical gates. All vessels are cautioned not to approach either dam within 1,000 feet (about 300 meters).

(62) **Chart Datum, St. Lawrence River, Eisenhower Lock to Iroquois Lock.**–Depths between Eisenhower Lock and Iroquois Lock are referred to the sloping surface of the river when the gauge above Eisenhower Lock reads 237.9 feet (72.51 meters) and the gauge below Iroquois Lock reads 240.1 feet (73.18 meters). These elevations are above mean water level at Rimouski, Quebec, on International Great Lakes Datum 1985 (IGLD 1985). (See Chart Datum, Great Lakes System, indexed as such, chapter 1.)

(63) A marina in a basin on the NW side of Barnhart Island provides gasoline, diesel fuel by truck, ice, sewage pump-out, some marine supplies, and a launching ramp. In 1977, depths of 4 to 8 feet were reported alongside. A marina on the Canadian shore 2.4 statute miles (2.1 nm) NW has electricity, gasoline, diesel fuel, marine supplies, sewage pump-out, water, ice, and a mobile lift and marine railways that can handle craft to 50 tons or 55 feet (16.8 meters) long for hull and engine repairs.

(64) **Massena Canal,** a former power canal, extends SE from the St. Lawrence River near the upper end of the Long Sault Islands for 2.8 statute miles (2.4 nm) to the junction with Grass River. The canal is closed to navigation by a dam at either end. **Massena, N.Y.,** at the junction of Massena Canal and Grass River, is the site of the field headquarters of the Saint Lawrence Seaway Development Corporation. (See appendix for address.)

(65) The Coast Guard maintains a **Marine Safety Detachment** office in Massena. (See appendix for address.)

(66) Massena is a **customs port of entry.**

(67) **Quarantine, customs, immigration, and agricultural quarantine.**–(See chapter 3, Vessel Arrival Inspections, and appendix for addresses.)

(68) **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

(69) **Wharf.**–Metropolitan Petroleum Co., Inc. receives petroleum products at a wharf on the S side of Wiley-Dondero Canal in 44°57'57"N., 74°55'05"W. The wharf has 650 feet of berthing space with dolphins and a depth of 30 feet alongside in 1977.

(70) **Chart 14762.**–Coming out of Wiley-Dondero Canal on the S side of Croil Islands, the vessel route turns SW on the S side of **Cat Island** and **Cat Island Shoal,** thence N of **Wilson Hill Island,** S of **,** N of **Bradford Island, Crysler Shoal,** and **Goose Neck Island Shoals,** between **Doran Shoal** on the E and **Broder Island** on the W, and N of **Murphy Islands** and **Murphy Shoal** to the vicinity of Morrisburg, Ont.

(71) The light marking the N side of the Crysler Shoal is equipped with a racon.

(72) About 1.5 statute miles (1.3 nm) SSW of Crysler Shoal, a channel leads S to a marina. The marina provides gasoline, diesel fuel by truck, water, ice, electricity, sewage pump-out, some marine supplies, and a launching ramp. A 10-ton lift is available for hull and engine repairs. In 1977, depths of 4 to 8 feet were reported alongside the berths.

(73) **Calling-in point.**–Upbound vessels shall contact "Seaway Iroquois" on VHF-FM channel 11 and downbound vessels shall contact "Seaway Eisenhower" on VHF-FM channel 12 when approximately abeam of Bradford Island. After initial con-

tact, vessels shall guard VHF-FM channels 11 (upbound) and 12 (downbound). (See the Seaway Handbook for details.)

(74) **Anchorage.**–A designated anchorage is on the N side of the vessel route opposite Wilson Hill Island, between Weaver Shoal and Cat Island Shoal. The NW limit of the anchorage is marked by lighted buoys. Mariners are cautioned against anchoring near a wreck, covered 47 feet (14.3 meters), near the W end of the anchorage.

(75) **Morrisburg, Ont.,** is a town on the N side of the St. Lawrence River, 17 statute miles (14.8 nm) above Eisenhower Lock.

(76) The following is extracted (partial) from **Canadian Sailing Directions CEN301, St. Lawrence River, Chapter 1**. It is to be noted that the units of miles are nautical miles.

(77) *The village of **Morrisburg**, with a population of 2,429 (1991), is on the north shore opposite the **Murphy Islands** (44°54'N., 75°11'W.), which are wooded.*

(78) *The United Church spire, near the shore, and the silver water tower, 50 m (165 ft) in elevation, behind the town, are conspicuous.*

(79) *An L-shaped **Public wharf**, with an end section 33 m (108 ft) long, extends 23 m (75 ft) from the shore.*

(80) *Morrisburg Public Wharf and Ramp, at Morrisburg, had depths of 2.1 m (7 ft) in 1994 and offered dockage and concrete ramps.*

(81) *Morrisburg Boat Docks Park, east of the Public wharf, in 1994 offered washrooms, picnic tables, tennis courts, pay phone, drinking water, showers, children's playground and supervised swimming beach.*

(82) From Morrisburg, the vessel route continues SW between **Canada Island** and **Clark Island Shoal,** thence follows close to the Canadian shoreline around the N side of **Ogden Island** and continues SW for about 4 statute miles (3.5 nm) to Iroquois Lock.

(83) **Currents, St. Lawrence River**.–In August 1976, currents in the main channel in the Ogden Island reach were determined to be from 2.4 to 2.7 knots. The current sets N immediately E of Canada Island. An E set into Little River may be felt at the upper end of Ogden Island.

(84) **Waddington, N.Y.,** is a village on the S side of **Little River,** the channel of the St Lawrence River S of Ogden Island. The village wharf had a reported depth of 27 feet alongside in 1977.

(85) **Calling-in point.**–Upbound vessels shall contact "Seaway Iroquois" on VHF-FM channel 11 when approximately abeam of the upper end of Ogden Island. After initial contact, vessels shall guard VHF-FM channel 11. (See the Seaway Handbook for details.)

(86) **Chart 14763.–Iroquois, Ont.,** is a village on the NW side of the river about 7 statute miles (6.1 nm) above Morrisburg and 13 statute miles (11.3 nm) below Ogdensburg. **Iroquois Dam,** just above the village, extends from **Rockway Point** on the United States shore to **Harkness Island** on the Canadian side. The 2,700-foot-long (823 meter-long) dam is a buttressed gravity structure with 32 openings, each with a vertical-lift gate. **Iroquois Lock,** with a lift of 0.5 to 6 feet (0.1 to 1.8 meters), is between the W side of Harkness Island and Iroquois Island and provides a passage around the dam.

(87) Small pleasure craft may, at their own risk, pass through the portals of Iroquois Dam when the gates are fully open. A minimum overhead clearance of 8½ feet (2.6 meters) is provided through sluice No. 28 for downbound passage and through sluice No. 30 for upbound passage. The piers of sluice No. 28 are painted with the standard red and black channel markings on the upstream side of the dam, and the piers of sluice No. 30 are marked similarly on the downstream side of the dam.

(88) **Caution.**–Although the dam is usually operated in a fully open position, some or all of the gates may be closed or partially closed without prior notice. The Seaway Authority advises that small craft passing through the dam sluices are outside of the Authority's jurisdiction and that it is not responsible for any damage resulting from the use of these facilities.

(89) **Chart Datum, St. Lawrence River above Iroquois Dam.**–Depths above Iroquois Dam are referred to the sloping surface of the river when the gage above Iroquois Lock reads 240.3 feet (73.24 meters) and Lake Ontario is at Low Water Datum, elevation 243.3 feet (74.2 meters). These elevations are above mean water level at Rimouski, Quebec, on International Great Lakes Datum 1985 (IGLD 1985). (See Chart Datum, Great Lakes System, indexed as such, chapter 1.)

(90) The upbound channel coming out of Iroquois Lock is marked by a **205°48'** leading light on **Sparrowhawk Point.** The vessel route leads S of **Toussaint Island,** thence N of **Galop Island, Chimney Island,** and **Chimney Point** to Ogdensburg, N.Y. **Old Galop Canal,** now closed to navigation, follows the Canadian shore from just below Iroquois Lock upstream for about 7 statute miles (6.1 nm). **North Channel,** the upper entrance to Old Galop Canal, is N of Chimney Island, between **Drummond Island** and **Spencer Island.**

(91) **Currents, St. Lawrence River.**–River currents between Iroquois and Ogdensburg are generally about 2 knots. The current has a N set at the upper end of Galop Island and an E set just below Ogdensburg-Prescott Bridge. In 1976, currents between **Cardinal, Ont**. and **Chimney Point** were determined as follows:

(92) August 2.3 to 3.1 knots,

(93) November 2.4 to 3.1 knots,

(94) December 1.7 to 2.8 knots.

(95) Two small marinas on the U.S. shore behind Galop Island provide gasoline, diesel fuel, water, ice, electricity, some marine supplies, launching ramps, and repairs to trailerable craft.

(96) **Calling-in point.**–Downbound vessels shall contact "Seaway Iroquois" on VHF-FM channel 11 when approximately abeam of the lower end of Galop Island. After initial contact, vessels shall guard VHF-FM channel 11. (See the Seaway Handbook for details.)

(97) **Ice booms.**–An ice boom extends from the SW end of Galop Island across the navigational channel to the S end of **Lame Squaw Island** during the non-navigation season. The 400-foot (122-meter) section across the channel is marked by lights. The connected logs that form the boom are anchored to the river bottom through a series of anchors and cables that extend about 500 feet (about 150 meters) upstream. The ice boom may be opened when required for movement of vessels. Other ice booms with similar anchorages, but not across the navigation channel, are on the W side of Chimney Point and between the U.S. mainland and Galop Island.

(98) Ogdensburg-Prescott Bridge, a suspension span with a clearance of 129 feet (39.3 meters) across the ship channel, crosses the St. Lawrence River 10 statute miles (8.7 nm) above the Iroquois Lock. The N and S piers of the bridge are equipped with a racon.

(99) In December 1980, a ship's anchor was reported about 0.5 statute mile (0.4 nm) above the Ogdensburg-Prescott Bridge in about 44°43'48"N., 75°28'03"W.

(100) **Lower Lakes Terminal.**–The following is extracted (partial) from **Canadian Sailing Directions CEN301, St. Lawrence River, Chapter 2**. It is to be noted that the units of miles are nautical miles.

(101) **Canada Ports Corporation Lower Lakes Terminal** *(44°44'N., 75°28'W.), on the NW shore 0.5 mile upstream of the bridge, is a major trans-shipment point for grain. In 1993, 25 ships used the port.*

(102) *This terminal is administered and operated by Ports Canada; vessels using these facilities are subject to the Canada Ports CorporationOperating By-law. A copy of the By-law may be obtained from the Operations Manager, Ports Canada Facilities, Prescott, Ontario.*

(103) *Lower Lakes Terminal Sector light (312), shown from the side of the grain elevator at the terminal, has a fluorescent-orange rectangular daymark. The white sector indicates the preferred channel.*

(104) *The Ports Canada grain elevator at the Lower Lakes Terminal has a capacity of 154,020 tonnes of grain. It is a long narrow structure with unloading facilities for large lake vessels on one side and loadingfacilities on the other. Railway car loading facilities are at the inshore end of the elevator. The railway yard has space for 125 cars.*

(105) *The unloading berth, slip B, north of the elevator, is 340 m (1,115 ft) long, with a depth of 7.9 m (26 ft). It will accommodate two large lake vessels. Three traveling marine towers unload vessels; each tower has a capacity of 980 tonnes of grain per hour. The loading berth, slip A, south of the elevator, is 274 m (900 ft) long and had a depth of 7.6 m (25 ft) in 1992. This berth is equipped with eleven spouts for loading grain. There is also berthing space for vessels waiting to load or unload. For the loading of railway cars or trucks, there are four elevator legs with a capacityof 476 tonnes per hour. The wharves have an elevation of 2.7 m (9 ft).*

(106) *There is an open stockpile area of 5,580 m2</SUP> (60,000 sq. ft.) on the north pier for the storage of salt and nitrates. There is an open stockpile area of 2,415 m2</SUP> (26,000 sq. ft.) on the south pier.*

(107) ***Caution.**–In 1994, there was a submerged obstruction 23 m (75 ft) east of the NE corner of the jetty on the south side of slip A. This obstruction is a pile or metal object, submerged by 7.7 m (25 ft).*

(108) *Pilots and tugs are available for berthing at the Lower Lakes Terminal; pilots require four hours notice.*

(109) **Chart 14764.–Ogdensburg, N.Y.,** is a town and harbor on the SE side of the St. Lawrence River about 42 statute miles (36.5 nm) above Snell Lock and 62 statute miles (53.9 nm) below Lake Ontario. The harborfront is separated from the main river channel by an extensive shoal bank. The **Oswegatchie River** enters the St. Lawrence River near the upper end of the harbor.

(110) **Channels.**–Entering from the St. Lawrence River, the upper entrance to the harbor is through a dredged channel leading to the mouth of the Oswegatchie River, thence upstream to just below the third highway bridge. The harbor's lower entrance is through the turning basin at the E end of the harbor and thence through the city-front channel to the mouth of the Oswegatchie River. The channel limits are marked by lighted and unlighted buoys.

(111) In June 1999, the controlling depths were 18 feet in the upper entrance channel, thence 18 feet in the city-front channel to the Port Authority Marine Terminal, except for lesser depths along the edges, thence 24 feet in the lower entrance channel, and thence general depth of 18 to 20 feet in the turning basin with lesser depths near the S edge. In September 1998, the controlling depth in Oswegatchie River entrance was 15 feet to near the project limit below the third highway bridge. Above the project limit, depths are less than 4 feet for 0.3 statute mile (0.3 nm) to the dam.

(112) **Caution.**–Ruins of a ferry pier extend from shore on the W side of the upper entrance channel. A private lighted buoy marks the outer end of the ruins.

(113) **Bridges.**–Fixed highway bridges crossing Oswegatchie River 0.6, 0.63, and 0.7 statute mile (0.5, 0.55, and 0.6 nm) above the entrance have a least clearance of 15 feet (4.6 meters).

(114) Ogdensburg is a **customs port of entry.**

(115) **Quarantine, customs, immigration, and agricultural quarantine.**–(See chapter 3, Vessel Arrival Inspections, and appendix for addresses.)

(116) **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

(117) **Wharf.–Ogdensburg Bridge and Port Authority Marine Terminal:** (44°42'32"N., 75°29'11"W.); 1,250-foot face; 27 feet along side; deck height, 8-10 feet; 75,000 square feet covered storage; three open storage areas with a 120,000-ton capacity; two portable electric conveyers; water and electrical shore-power connections; receipt and shipment of general and bulk cargo; owned and operated by Ogdensburg Bridge and Port Authority.

(118) **Supplies.**–Diesel oil, water, provisions, and some marine supplies are available at Ogdensburg.

(119) **Small-craft facilities.**–The 300-foot (91.4 meters) city dock had a reported depth of 17 feet along side in 1977. Use of the dock is limited to pleasure craft. Several marinas at Ogdensburg provide transient berths, gasoline, water, ice, electricity, some marine supplies, a sewage pump-out facility, and launching ramps.

(120) **Ice boom.**–An ice boom extends from shore just above Ogdensburg across the river to Prescott, Ont., during the non-navigation season. A 400-foot (121.9 meters) section across the navigation channel is marked by lights. The connected logs that form the boom are anchored to the river bottom by a series of anchors and cables that extend about 500 feet (152.4 meters) upstream. The ice boom may be opened when required for movement of vessels.

(121) **Prescott, Ont.,** is a town on the NW side of the river opposite Ogdensburg.

(122) The following is extracted (partial) from **Canadian Sailing Directions CEN301, St. Lawrence River, Chapter 2**. It is to be noted that the units of miles are nautical miles.

(123) *The town of **Prescott**, with a population of 4,512 (1991), is on the NW shore 3 miles upstream of the suspension bridge. Prescott has rail and bus services. By the Seaway channel, Prescott is 110 miles from Montreal.*

(124) *Prescott is a Customs port of entry.*

(125) *Prescott Anchorage, with 8 anchorage areas, is in the river upstream of Prescott.*

(126) *Anchorage is prohibited in a cable area, 0.5 mile wide, that extends across the river from Prescott to Ogdensburg, NE of the anchorage area.*

(127) *The following objects in Prescott are conspicuous: the blockhouse of Fort Wellington, elevation 29 m (95 ft); the Anglican Church spire, elevation 55 m (180 ft); and a water tower with an elevation of 61 m (200 ft). A grey silo with a red and white top, elevation 45 m (148 ft), is SW of the town.*

(128) *Sandra S. Lawn Harbour Marina, on the NW shore at Prescott, had depths of 2.1 m (7 ft) in 1994 and offered dockage with power and water, pump out, picnic area, pay phone, showers, laundromat, ice, gasoline and diesel fuel, and monitored VHF Channel 68. This marina is an authorized dealer for Canadian Hydrographic Service nautical charts and publications.*

(129) *Prescott Heritage Harbour light (312.5), at the south side of the entrance to the marina, is shown at an elevation of 7.7 m (25 ft) from a white octagonal tower, 6.9 m (23 ft) high.*

(130) *There are several wharves at the town of Prescott. A ruined ferry slip and land fill area at the east end of the Prescott waterfront was under development in 1994. Next along the waterfront, west of the marina, are two wharves which are owned by the town. The first wharf is 66 m (217 ft) long, with a deck elevation of 1.8 m (6 ft). In 1994, there were depths of 3.4 to 5.8 m (11 to 19 ft) along the face. From early May until late September, pleasure craft can berth at this wharf. The second wharf, for the use of pleasure craft, is 76 m (249 ft) long with a deck elevation of 1.8 m (6 ft). In 1994, there were depths of 5.2 to 7.3 m (17 to 24 ft) along the face. Centennial Park, nearby, has a launching ramp, swimming pool, tennis courts, sandy beach and swimming area.*

(131) *Along the waterfront at the* ***Prescott Canadian Coast Guard Base*** *there are two wharves, each 100 m (328 ft) long with an elevation of 1.8 m (6 ft). In 1994, there were depths of 4.6 to 5.8 m (15 to 19 ft) at the outer face of the downstream wharf and 3.4 to 5.5 m (11 to 18 ft) at the outer face of the upstream wharf; the basin between the two wharves had depths of 1.8 to 3.7 m (6 to 12 ft). There is a depot for the storage and refitting of buoys; and there is a helicopter hangar near the downstream wharf.*

(132) *The shore property for 305 m (1,000 ft) upstream of the Canadian Coast Guard Base is the municipal Centennial of Confederation Prescott Community Park. In 1994, facilities included an excellent concrete launching ramp, picnic area, swimming pool, river-side swimming area, tennis courts, children's playground, drinking water and showers.*

(133) ***Caution.****–Mariners and small-craft operators are cautioned that the wash from passing ships may cause an uncomfortable surge at the Prescott wharves.*

(134) *The testing of various aids to navigation may be heard and seen in the vicinity of the Prescott Canadian Coast Guard Base. Mariners should not confuse aids being tested with the standard channel aids.*

(135) *A* ***submerged water intake*** *0.16 mile upstream of the Canadian Coast Guard Base extends 90 m (295 ft) offshore; the crib at the outer end has a depth of 5.2 m (17 ft).*

(136) **Anchorage.**–A designated anchorage just above Ogdensburg and Prescott has depths of 7 to 10 fathoms, clay and shingle bottom. A cable area crosses the river between the two cities at the lower end of the anchorage.

(137) Above Ogdensburg the river is deep and wide for about 10.5 statute miles (9.1 nm) to the **Three Sisters Islands,** and the vessel route follows a general midriver course. **Catamaran Shoal,** covered 12 feet (3.7 meters), is marked on the N side by a buoy about 8 statute miles (7 nm) above Ogdensburg. At the Three Sisters Islands, the vessel route extends between **McNair Island** and **North McNair Shoal.** The shoal has a least depth of 14 feet (4.3 meters) and is marked on the S side by a buoy.

(138) **Calling-in point.**–Downbound vessels shall contact "Seaway Iroquois" on VHF-FM channel 11 when about 1.5 statute miles (1.3 nm) below Catamaran Shoal. After initial contact, vessels shall guard VHF-FM channel 11. (See the Seaway Handbook for details.)

(139) **Charts 14764, 14770.–Morristown, N.Y.,** is a village and small-craft harbor on a small inlet on the SE side of the river opposite the Three Sisters Islands.

(140) **Channels.**–A dredged channel leads from the St. Lawrence River into the inlet to 250 feet (76.2 meters) below the highway bridge that crosses it. In 1964, the controlling depth was 7 feet.

(141) **Small-craft facilities.**–A public dock and launching ramp are on the E side of the inlet. In 1977, a depth of 10 feet (3 meters) was reported alongside the dock. Two marinas at Morristown provide transient berths, gasoline, diesel fuel by truck, water, ice, electricity, sewage pump-out, some marine supplies, and a launching ramp. A 5-ton mobile lift is available for hull and gasoline engine repairs.

(142) **Brockville, Ont.**–The following is extracted (partial) from **Canadian Sailing Directions CEN301, St. Lawrence River, Chapter 2**. It is to be noted that the units of miles are nautical miles.

(143) *The city of* ***Brockville****, with a population of 21,582 (1991), is on the NW shore 10 miles SW of Prescott. The downstream limit of the harbour is 0.1 mile SW of McNair Island; the upstream limit is near* ***Smith Island*** *and (44°34'N., 75°42'W.). Brockville has bus and rail services. By the Seaway channel, Brockville is 119 miles from Montreal.*

(144) *Brockville is a* ***Customs vessel reporting station*** *for pleasure craft.*

(145) **Blockhouse Island,** *connected to the main land by a land-fill area at its NE end, is a municipal park.* ***Tunnel Bay*** *is the inner end of the basin protected by Blockhouse Island.*

(146) *A* ***submerged water intake*** *0.3 mile NE of Blockhouse Island extends 220 m (722 ft) offshore.*

(147) *The Blockhouse Island jetty (44°35'N., 75°41'W.) extends SW from Blockhouse Island.* ***Brockville Public wharf****, on the Blockhouse Island jetty, is 142 m (466 ft) long and had depths of 0.6 to 3 m (2 to 10 ft) in 1994. Facilities included dockage with power and water, picnic area, pay phones and ice. There is a* ***customs office*** *on the Public wharf.*

(148) ***Landmarks.****–A Golden Hawk aerobatic jet plane mounted on a pedestal on this wharf is prominent. The town clock tower, elevation 42 m (138 ft), is north of Blockhouse Island. A water tower 0.75 mile NW of the Public Wharf has an elevation 74 m (243 ft).*

(149) The stretch of river from Brockville upstream to Lake Ontario is thickly strewn with large and small islands known as the **Thousand Islands.** No attempt is made here to mention each island and shoal in the group. The nautical charts are the best guide and are a necessity for navigating any portion of this stretch.

(150) **Charts 14764, 14765, 14770.–Brockville Narrows** is a partially dredged reach about 3 statute miles (2.6 nm) long that extends upstream from just above Brockville. The channel leads

close to the Ca na dian shore through a group of is lands that fill the river from bank to bank. The channel that parallels Brockville Narrows close to the New York shore is not suitable for deep-draft vessels. Nu mer ous shoal spots of less than 2 feet (0.6 meter) are between the New York shore and the main channel.

(151) **Currents**.–In July 1976, currents in Brockville Narrows were determined to be from 1.3 to 2.4 knots.

(152) **Charts 14765, 14770, 14771.**–Com ing out of Brockville Nar rows, the ves sel route ex tends SW be tween **Cole Ferry Shoal** and **Cole Shoal.** This reach is marked at the lower end by a **036°55'** lighted range. At **Whaleback Shoal,** about 3 statute miles (2.6 nm) above Brockville Narrows, the vessel route turns SSW for 2.5 statute miles (2.2 nm) on the E side of **Bay State Shoal** and **Crossover Island.** This reach is marked by a **013½°** lighted range and by Chippewa Point Directional Light at the lower and upper end, respectively.

(153) **Anchorage.**–A des ig nated an chor age marked by buoys is on the W side of the ves sel route abreast the turn at Whaleback Shoal.

(154) **Calling-in point.**–Upbound vessels shall contact "Seaway Clayton" on VHF-FM channel 13 and downbound vessels shall contact "Seaway Iroquois" on VHF-FM channel 11 when approximately abeam of Crossover Island. After initial contact, vessels shall guard VHF-FM channels 13 (upbound) and 11 (downbound). (See the Seaway Handbook for details.)

(155) A natural deepwater channel marked by lights and buoys leads SW from the turn at Whaleback Shoal and roughly follows the Ca na dian shore N of **Grenadier Island.**

(156) **Oak Point, N.Y.,** is a small sum mer re sort on the SE side of the river 2.4 statute miles (2.1 nm) above the upper end of Brockville Nar rows. Boats draw ing not more than 6 feet (1.8 meters) can land here, but caution is ad vised to avoid the shoals and small islands in the landing approach.

(157) **Blind Bay** is a small in let just E of Chippewa Point Di rectional Light. A sign marks the E side of the entrance. Several overhead cables with a reported least clearance of 28 feet (8.5 me ters) cross the en trance chan nel. In 1977, a re ported depth of 4 feet could be car ried along the N shore to a ma rina in the NE corner. Some marine supplies and gasoline engine repairs are available.

(158) **Charts 14765, 14771.**–From Blind Bay, the ves sel route follows a series of short reaches across the mouth of Chippewa Bay and passes NW of **Superior Shoal,** SE of **Jorstadt Island,** NW of **Haskell Shoal,** thence SE of Grenadier Island on the SE sides of **Empire Shoal** and **Sister Island Shoal,** NW of **Third Brother Island,** and SE of **Lone Brother Island.**

(159) **Chippewa Bay,** on the SE side of the river, is en closed by **Chippewa Point, Cedar Island,** and **Oak Island.** The bay is filled with numerous small islands, rocks, and shoals; local knowledge is advised. **Chippewa Bay, N.Y.,** a village on the E side of the bay, can be reached by boats drawing 4 feet. **Schermerhorns Landing,** 2.5 statute miles (2.2 nm) SW, has a marina with gasoline, water, ice, electricity, some marine supplies, and a launching ramp. A 5-ton forklift can haul 21-foot (6.4-meter) boats for hull and gasoline engine repairs.

(160) **Charts 14765, 14772.**–From Lone Brother Island, the ves sel route con tin ues SW, be tween **Iron sides Shoal** on the NW and **Ironsides Island** and **Inner Ironsides Shoal** on the SE, thence SE of **Whis key Is land Shoal** off the mouth of Goose Bay.

(161) **Goose Bay** is on the SE side of the St. Law rence River, SE of Whiskey Island Shoal and the upper end of Grenadier Island. The bay is very shallow and has a mud bottom with numerous rocks.

(162) **Charts 14766, 14767, 14772, 14773, 14774, *1419, *1420, *1438, *1439–Canadian Middle Channel** branches W from the main ves sel course at Iron sides Is land and leads through the Thousand Islands on the Canadian side of the International boundary, thence between Wolfe Island and Howe Island and into Lake On tario in the vi cin ity of Kingston, Ont. The chan nel is marked by lights and buoys.

(163) **Speed limit.**–There is a speed limit of 9.5 knots (10.9 mph) over the ground for all vessels over 40 feet (12.2 m) in length in the Canadian Middle Channel and adjacent waters.

(164) Above Ironsides Island, Canadian Middle Chan nel leads past the SW end of Grenadier Island, thence through **Raft Narrows** along the main land. The main chan nel through the nar rows is crossed by a fixed high way bridge with a clear ance of 120 feet. Above the narrows, the channel divides around Wood Island, along the N side upbound and the S side downbound. Thence the chan nel leads be tween **Wallace Island** and **Ash Island,** SW past **The Navy Islands,** and through the S part of **The Lake Fleet Islands** to a point N of **The Punts,** thence S of **Leek Island** and into the deep wide wa ter be tween Wolfe and Howe Is lands.

(165) **Charts 14766, 14772.–Rockport, Ont.,** is a small vil lage on the N side of the river at the E end of Raft Narrows.

(166) The following is extracted (partial) from **Canadian Sailing Di rec tions CEN301, St. Law rence River, Chap ter 3**. It is to be noted that the units of miles are nau ti cal miles.

(167) ***Rockport**, population 149 (1981), is on the Canadian mainland 0.4 mile west of Tar Island light.*

(168) *Rockport is a **Customs vessel reporting station** for pleasure craft.*

(169) *A **Canadian Coast Guard Inshore Rescue Boat** is based at Rockport from the end of May to the beginning of September each year, though these dates are sub ject to change (see in for mation on Search and res cue in Sailing Di rec tions book let CEN300 General Information, Great Lakes).*

(170) *At Rockport, there is an L-shaped **Public wharf** with an outer face 13 m (43 ft) wide and depths in 1995 of 3.9 m (13 ft) at the outer face and 2.9 m (10 ft) on each side. Another **Public wharf**, 30 m (98 ft) long and 6.1 m (20 ft) wide, extends in a SW direction from the south end of the waterfront. There are depths of 2.1 to 2.7 m (7 to 9 ft) at the outer end of this wharf. The deck of this wharf has an elevation of 1.8 m (6 ft). There is a public boat launching ramp at Rockport.*

(171) **Ivy Lea, Ont.,** is a small resort village about 1.4 statute miles (1.2 nm) W of the bridge across Raft Narrows.

(172) The following is extracted (partial) from **Canadian Sailing Di rec tions CEN301, St. Law rence River, Chap ter 2**. It is to be noted that the units of miles are nau ti cal miles.

(173) ***Ivy Lea**, pop u la tion 104 (1981), is a sum mer re sort on the Canadian mainland 0.5 mile NNW of Ash Is land.*

(174) *East of Ivy Lea is an L-shaped Public wharf; the outer face is 35 m (115 ft) long with an elevation of 1.5 m (5 ft) and a depth of 0.7 m (2 ft). There is a launch ing ramp next to the Pub lic wharf.*

(175) *Ivy Lea is a **Customs vessel reporting station** for plea sure craft.*

(176) **Charts 14767, 14774.–Gananoque, Ont.,** is a town at the mouth of **Gananoque River**, about 12 stat ute miles (10.4 nm) W of Rockport and 18 statute miles (15.6 nm) E of Kingston.

(177) The following is extracted (partial) from **Canadian Sailing Directions CEN301, St. Lawrence River, chapter 3**. It is to be noted that the units of miles are nautical miles.

(178) *The town of **Gananoque**, with a population of 5,209 (1991), is built along both sides of the **Gananoque River**. A swing bridge crosses near the mouth of the river, and a road bridge crosses 0.3 mile up stream. The swing bridge has a ver ti cal clear ance of 4.3 m (14 ft) when closed; it is opened only on ap plication to the town authorities. Between the two bridges, the stream is 45 m (148 ft) wide with wooden wharves along both shores. The shore east of the town to Sturdivants Point, 2.5 miles away, rises to an elevation of 12 m (40 ft).*

(179) *Gananoque is a **Customs vessel reporting station** for pleasure craft.*

(180) *There is an L-shaped **Public wharf** 110 m (361 ft) east of the east en trance point of the river. Another **Public wharf**, with a to tal length of 177 m (581 ft) and an el e va tion of 1.8 m (6 ft), extends SW along the shore from the mouth of the river.*

(181) **Charts 14768, 14802, *2017.–Kingston Harbour,** serving the city of **Kingston, Ont.,** is on the N side of the head of the St. Lawrence River at the mouth of **Cataraqui River.**

(182) **Rideau Waterway.**–The Rideau Waterway connects the Ot tawa River at **Ot tawa, Ont.,** with the head of the St. Law rence River at Kingston. From Ottawa, the waterway follows the **Rideau River** up stream to its source in the **Rideau Lakes**, a distance of 123.5 statute miles (107.3 nm). For description of the Rideau Waterway consult **Canadian Small Craft Guide, Rideau Waterway and Ottawa River**.

(183) **Charts 14766, 14772.**–From Whiskey Island Shoal, the main ves sel route leads SW be tween the **Summerland Group** on the NW and the **Excelsior Group** on the SE. **Deer Island,** close SW of the Summerland Group, is marked on the SE side by a light.

(184) Above Deer Is land, the ves sel route passes the lower end of **Wellesley Island** and leads SE of the **Manhattan Group, Frontenac Shoal,** and **Pull man Shoal** and NW of **Sunken Rock Island, Sunken Rock Shoal,** and **Cherry Is land.**

(185) **West min ster Park, N.Y.,** is a summer resort at the lower end of Wellesley Island. The wharves at the village are in ruins and submerged.

(186) **Alexandria Bay, N.Y.,** is a summer resort village on the SE side of the river opposite the lower end of Wellesley Island. Wharves at the village are easily approached from the river. **Broad way Shoal,** in the ap proach to the vil lage, has a depth of 13 feet (4 meters) and is marked by a buoy.

(187) Alexandria Bay is a **customs port of entry.**

(188) **Quarantine, customs, immigration, and agricultural quarantine.**–(See chapter 3, Vessel Arrival Inspections, and appendix for addresses.)

(189) **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

(190) **Alexandria Bay Coast Guard Station** is on the SE side of Wellesley Island about 1,000 feet W of Cherry Island.

(191) **Small-craft facilities.**–Small bays at ei ther end of the village have an chor age for boats draw ing 6 to 11 feet (1.8 to 3.4 meters). The 460-foot (140-meter) village dock, about 0.25 statute mile (0.2 nm) NE of Cherry Is land, had a re ported depth of 7 feet (2.1 meters) alongside in 1977. Marinas at Alexandria Bay provide gasoline, diesel fuel, water, ice, electricity, sewage pump-out, ma rine sup plies, and launch ing ramps. Mo bile lifts to 60 tons and a 15-ton ma rine rail way that can han dle 80-foot (24.4 me ter) craft are avail able for hull, en gine, and elec tronic re pairs. Machine shops can repair shafts up to 3 inch diameter.

(192) **Charts 14766, 14772, 14773.–American Narrows (Upper Nar rows)** sep a rates Wellesley Is land from the U.S. main land for about 6 stat ute miles (5.2 nm) from Cherry Island SW to the upper end of Wellesley Is land. The chan nel through the nar rows is generally deep, has a least width of 450 feet (137 meters), and is well marked by lights and buoys. The channel is bordered throughout its length by small islands and shoals.

(193) The lower entrance to the narrows is marked by a **218°** leading light at the village of Point Vivian, about 1 statute mile (0.9 nm) SW of Cherry Island.

(194) **Currents.**–In July-August 1976, currents from Alexandria Bay to Point Vivian were determined to be from 1.2 to 1.5 knots. In July 1976, the current at the Thousand Islands Bridge was determined to be 2.8 knots.

(195) In 1977, it was re ported that the river cur rent of ten reaches 2 knots in the en trance to the nar rows from about 0.3 to 0.8 statute mile (0.3 to 0.7 nm) above Cherry Island and thence 1.5 to 2 knots SW to Swan Bay.

(196) **Swan Bay** and **Brown Bay** are shallow inlets about 2.5 statute miles (2.2 nm) above Cherry Island on the SE and NW sides of the nar rows, re spec tively. Dur ing the sum mer, gas o line is available at a small ma rina on the NE side of Swan Bay. In 1977, the re ported depths were 3 feet (0.9 me ter) in the ap proach and 6 feet (1.8 meter) alongside.

(197) **Thousand Islands Bridge,** a suspension span with a clearance of 150 feet (45.7 me ters), crosses the nar rows just W of Swan Bay.

(198) **Niagara Shoal,** covered 3 feet and marked on the N side by a lighted buoy, is on the SE side of the narrows 1.5 statute miles (1.3 nm) above the bridge. Com ing out of the nar rows at the upper end of Wellesley Island, the vessel route passes SE of **Granite State Shoals,** marked by a light, and NW of **Rock Island Reef,** marked by a lighted buoy.

(199) **Fineview, N.Y.,** is a small settlement on Wellesley Island just below Gran ite State Shoals. A dock at the set tle ment is suitable for skiffs only because of many rocks off the end. In 1977, the reported depths were less than 2 feet (0.6 meter) alongside.

(200) **Thou sand Is land Park,** is a private sum mer re sort at the up per end of Wellesley Is land. In 1977, the re sort dock had a reported depth of 10 feet (3 meters) alongside, but the dock approach from the river chan nel is nar row and ob structed by nu merous rocks.

(201) **Fishers Landing, N.Y.,** is a settlement 0.8 statute mile (0.7 nm) SE of Fineview on the W side of **Mullet Creek Bay.** Several marinas provide transient berths, gasoline, water, ice, elec tric ity, some ma rine sup plies, and launch ing ramps. Fork lifts to 4 tons can haul out 22-foot (6.7 me ters) craft for hull and gas o-

line engine repairs. In 1977, depths of 10 to 15 feet (3 to 4.6 meters) were reported available at the berths.

(202) **Charts 14766, 14773, 14774.**–Above American Narrows, the vessel course is through a wide area of generally deep water. The route passes NW of **Little Round Island** and **North Colborne Island,** marked by a light, thence SE of **Chapman Shoal,** marked by a light and racon, and thence between **Washington Island** to SE and **Calumet Island** to NW.

(203) A marina on the E side of **Spicer Bay,** about 1.2 statute miles (1 nm) E of Little Round Island, provides gasoline, water, ice, electricity, some marine supplies, and a launching ramp. A 12-ton fixed lift can han dle 36-foot (11-meter) craft for hull and engine re pairs. In 1977, the re ported con trol ling depths were 4 feet (1.2 me ters) in the ap proach and 5 feet (1.5 me ters) along side the berths.

(204) **Clay ton, N.Y.,** is on the SE side of the St. Law rence River about 20 statute miles (17.4 nm) below Lake Ontario. **Grindstone Island** is in midriver NW of Clayton, and Washington Island is close to shore NE of the village.

(205) A causeway connects Washington Island to Clayton. The fixed span near the island end of the causeway has two 33-foot (10.1-meter) openings, each with a clearance of 6 feet (1.8 meters).

(206) Clayton is a **customs port of entry.**

(207) **Quarantine, customs, immigration, and agricultural quarantine.**–(See chap ter 3, Ves sel Ar rival In spec tions, and appendix for addresses.)

(208) **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

(209) **Small-craft facilities.**–The deep water of the river extends to within a short distance of the wharves at Clayton, at which there are depths up to 24 feet (7.3 meters). The city dock reported depths of 4 to 20 feet (1.2 to 6.1 meters) alongside in 1977. The dock has a 2 hour moor ing limit. The mu nic i pal dock, marked at the outer end by a private light, is at the foot of Mary Street. In 1977, depths of 4 to 20 feet were reported alongside. Submerged ruins are on the S side at the inner end of the dock. Water and electricity are available.

(210) Sev eral ma ri nas at Clay ton and on Cal u met Is land pro vide gasoline, diesel fuel, water, ice, electricity, sewage pump-out, marine supplies, and launching ramps. Lifts to 30 tons and a 50-ton marine rail way that can han dle 65-foot (19.8-meter) craft are available for hull, engine, and electronic repairs. Mast-stepping service is available at Calumet Island.

(211) **Charts 14766, 14767, 14774.**–Above Clayton and Calumet Island, the vessel course passes SE of **Calumet Shoal,** marked by a light, and thence N of **Bart lett Point.** A light is close off the point. A 16-foot spot is marked by a buoy about 0.5 stat ute mile (0.4 nm) WNW of Bartlett Point.

(212) **Charts 14802, 14767, 14774.**–About 3 statute miles (2.6 nm) above Bartlett Point, the International boundary passes between the W end of Grind stone Is land and the E end of Wolfe Island and thence follows close to the S shore of Wolfe Island into Lake Ontario.

(213) Be tween the up per end of Grind stone Is land and **Hickory Island,** an unmarked channel of natural deep water leads from the main ves sel route N to con nect with Ca na dian Mid dle Channel. The channel is bordered closely by islands, rocks, and shoals.

(214) The fol low ing is ex tracted from **Ca na dian Sailing Directions CEN301, St. Lawrence River, chapter 3**.

(215) ***Wolfe Island Cut,*** *close off the E end of Wolfe Island, is a dredged channel connecting the Seaway channel and the open water between Wolfe and Howe Islands. This channel, 140 meters (459 feet) wide, has a depth of 6.1 m (20 feet) in its SE entrance; the channel is marked by buoys and light buoys.*

(216) *Wolfe Island Light (378), on Quebec Head (44°14'N., 76°11'W.), which is the NE end of Wolfe Is land, is shown at an el eva tion of 11.3 m (37 feet) from a white tower, 6.4 m (21 feet) high.*

(217) **Charts 14802, 14767, 14768.**–**Wolfe Island** is a large irregularly shaped island that ex tends from the broad en trance of the St. Lawrence River at Lake Ontario downriver for about 18 statute miles (15.6 nm). The island is about 6 statute miles (5.2 nm) wide at the head of the river; downstream it diminishes in width and is indented by numerous bays.

(218) **Charts 14802, 14767.**–From Bartlett Point, the vessel course continues SW for about 6 statute miles (5.2 nm), passing SE of the lower end of Wolfe Island and NW of the light that marks **Linda Island.** A shoal with a least depth of 11 feet (3.4 meters) is marked at the N end by a lighted buoy 0.9 statute mile (0.8 nm) W of Linda Island. Near this shoal the course turns W, par al lel to the Wolfe Is land shore, and is marked at the W end by a directional light on **Bayfield Island** with a **262.25°–263.75°** white sector.

(219) A marina on the E side of **Millen Bay,** 2.8 statue miles (2.4 nm) SW of Linda Is land, pro vides tran sient berths, gas o line, water, electricity, some marine supplies, a launching ramp, and minor repairs. In 1977, the reported controlling depths were 5 feet (1.5 me ters) in the ap proach and 2 to 10 feet (0.6 to 3 me ters) at the berths.

(220) **Charts 14802, 14767, 14768.**–The vessel course turns S between **Carleton Island** on the E and **Carpenter Point** on the W and is marked at the lower end by a **013°20'** lighted range on **Irvine Point. Hinckley Flats Shoal,** on the W side of this reach, is marked on the E side by two lighted buoys. **Feather Bed Shoal,** on the E side of the chan nel, is marked by a lighted buoy.

(221) **Cape Vin cent, N.Y.,** is a vil lage and small-craft har bor on the S side of the St. Law rence River about 3 statue miles (2.6 nm) below Lake Ontario.

(222) **Channels.**–A dredged channel leads along the city front on the St. Lawrence River. The channel is protected by a 1,380-foot-long (420-meter) breakwater which parallels the shore. The ends of the break wa ter are marked by lights. The Federal pro ject depth is 16 feet (4.9 me ters) in the W part of the channel and 20 feet (6.1 meters) in the E part.

(223) Cape Vincent is a **customs port of entry.**

(224) **Quarantine, customs, immigration, and agricultural quarantine.**–(See chap ter 3, Vessel Arrival Inspections, and appendix for addresses.)

(225) **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

(226) **Harbor regulations.**– (See **33 CFR 207.610,** chapter 2, for harbor regulations.)

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(227) **Small-craft facilities.**–Deep wa ter can be car ried to the docks in the har bor, and ves sels up to 10-foot (3-meter) draft can be accommodated. Marinas in the harbor provide transient berths, gasoline, diesel fuel, water, ice, electricity, sewage pump-out, some marine supplies, and a launching ramp. Mobile lifts to 16 tons are available for hull, engine, and electronic repairs.

(228) **Ferry.**–Au to mo bile and pas sen ger fer ries op er ate sea son ally from Cape Vincent to Point Alexandria on Wolfe Island.

(229) **Charts 14802, 14768.–Point Alexandria** (44°08.2'N., 76°21.3'W.) is at the outer end of **Hornes Point**, a jut ting pen insula at the SE end of Wolfe Is land op po site Cape Vin cent. A ferry pier is at Point Alexandria.

(230) **Calling-in points.**–Upbound and downbound vessels shall contact "Seaway Clayton" on VHF-FM channel 13 when approximately abeam of Point Alexandria. After initial contact, vessels shall guard VHF-FM channels 16 (upbound) and 13 (downbound). (See the Seaway Handbook for details.)

(231) A light marks the Wolfe Island shore about 1.8 statute miles (1.6 nm) WSW of Point Alexandria. A lighted buoy 0.6 statute mile (0.5 nm) SE of the light marks the outer edge of an 18-foot shoal. **Bear Point** (44°05.7'N., 76°26.6'W.), at the head of the St. Law rence River, is the south ern most point of Wolfe Island. A buoy 0.6 statute mile (0.5 nm) SSW of the point marks the outer edge of a shoal with depths of 8 feet. **Big Sandy Bay** and **Reeds Bay,** on the SW side of Wolfe Is land, are sep a rated by **Long Point.** A shoal extends 1.3 statute miles (1.1 nm) WSW from Long Point and is marked near the outer end by a buoy. **Horse shoe Is land** is off **Staley Point** at the NW end of Wolfe Island.

(232) Above Cape Vincent, the vessel course extends SW for about 4 statute miles (3.5 nm) to the waters of Lake Ontario. **Tibbetts Point Light** (44°06.0'N., 76°22.2'W.), 69 feet above the water, is shown from a white conical tower on the New York shore at the head of the St. Law rence River. **Tibbetts Point Traffic Lighted Buoy** is about 1.8 statute miles (1.6 nm) W of the light.